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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/814,204

03/31/2004

Shouchun Xie

KANGX4.001AUS

6008

20995

7590

08/22/2006

KNOBBE MARTENS OLSON & BEAR LLP

2040 MAIN STREET

FOURTEENTH FLOOR

IRVINE, CA 92614

EXAMINER

BROWN, DREW J

ART UNIT

PAPER NUMBER

3616

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/814,204	XIE, SHOUCHUN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Drew J. Brown	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-14 and 18-25 is/are rejected.
- 7) ☒ Claim(s) 4, 15-17 and 26-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/7/04</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the steering wheel being further provided with a contracting brake or a tray bake must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

2. Claims 3, 4, and 9 are objected to because of the following informalities:

In lines 5 and 7 of claim 3, "the steering wheel" should be changed to --the at least one steering wheel--.

In line 4 of claim 4, "turning" should be changed to --turn--. Appropriate correction is required.

In line 2 of claim 9, "in middle" should be changed to --in the middle--.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 8, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Wang (U.S. Pat. No. 6,907,949 B1).

Wang discloses a supporting platform (24) having a first end (right side of platform in Figure 6), a second end (left side of platform in Figure 6), and a longitudinal axis perpendicular to the first and second ends. An upright tube (30) is provided at a first end of the supporting platform and is operatively connected with the supporting platform and has a handle frame fitted on a top end thereof (Figure 5). Wang discloses a power supply means (column 5, line 7, a driving means (39, 41) electrically connected with the power supply means, at least two driving wheels (37, 40) driven by the driving means, wherein the driving wheels are operatively mounted at opposite sides of the first end of the supporting platform and parallel to the longitudinal axis, and first and second steering wheels (42, 46), which are operatively mounted on a bottom of the second end portion of the supporting platform and parallel to the longitudinal axis (Figure 6). The driving means is installed in the driving wheel in order to drive the driving wheel to rotate (Figure 6), and the driving means includes a left (39) electric hub and a right (41) electric hub, which are respectively installed in the middle of the two driving wheels.

A steering control arrangement is installed in the supporting platform (Figure 6), wherein the steering control arrangement has a first end thereof fixedly connected with a steering post provided at a lower end of the upright tube (Figure 6), and at least one second end thereof connected with at least one steering knuckle (Figure 5), and wherein the steering wheels are connected to the steering knuckle, thereby the torsion of the upright tube is transmitted to the steering knuckle via the steering control arrangement to drive the steering wheels to rotate in

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order to enable the electric-driven vehicle to turn correspondingly (Figure 12 and 13; column 4, lines 22-30).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Bradenfels (U.S. Pat. No. 4,750,578).

Wang discloses the claimed invention as discussed above but does not disclose that the handle frame is extendably fitted on the top end of the upright tube and able to be positioned or re-positioned by using a quick clamping device provided on the upright tube. Wang also does not disclose that the power supply means is provided on a bottom of the supporting platform.

Bradenfels, however, does disclose that the handle frame is extendably fitted on the top end of the upright tube and able to be positioned or re-positioned by using a quick clamping device provided on the upright tube (column 4, lines 37-50). The lower end of the upright tube is pivotally connected with the supporting platform, thereby the upright tube is selectively collapsible towards the second end of the supporting platform (Figure 14). Bradenfels also discloses that the power supply means (14) is provided on a bottom of the supporting platform (in compartment 22).

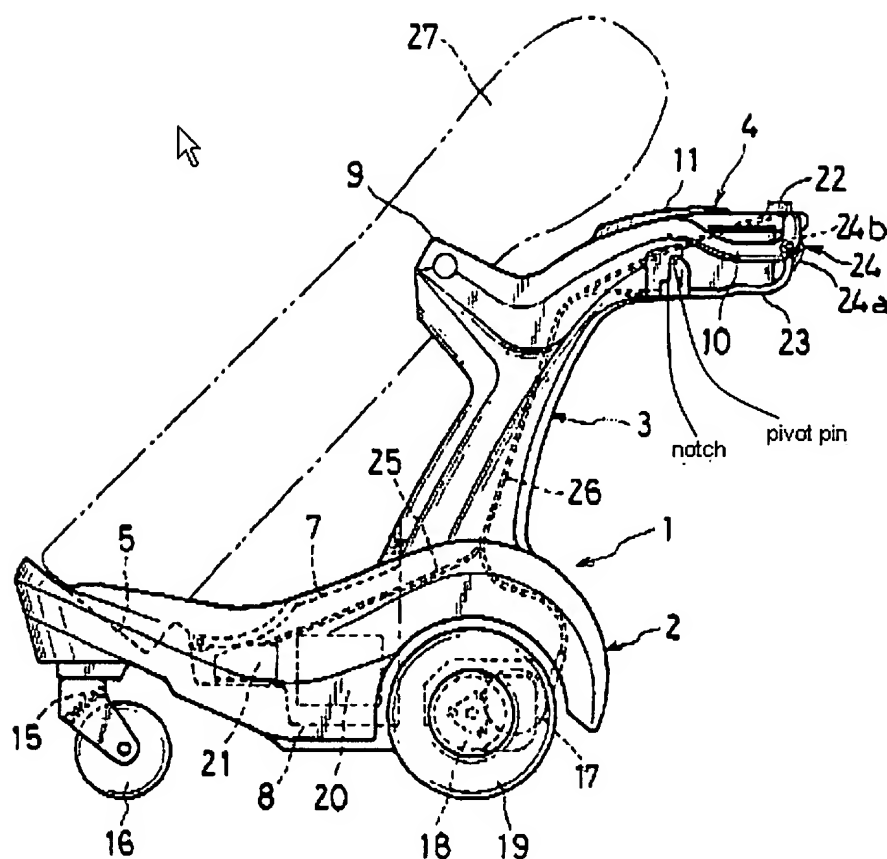
Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Wang in view of the teachings of Bradenfels to use a quick clamping device to make the handle frame extendable so that the vehicle can be used comfortably by occupants of different heights. It would also have been obvious to provide the power supply means on the bottom of the supporting platform in order to create more space above the platform for the occupant to stand. Also, it lowers the center of gravity of the vehicle to help prevent it from rolling.

7. Claims 10, 13, 14, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Furuta (U.S. Pat. No. 6,732,823 B2).

Wang discloses the claimed invention as discussed above and discloses a controller that is electrically connected with the right electric hub (column 5, lines 6-9), and wherein the controller is electrically connected with the power supply means via a relay unit (column 5, line 7). Although Wang does not specifically disclose that the controller includes both a left and right controller, it is inherent that there must be left and right controllers since the left and right hubs are electrically independent of each other. Wang also discloses an accelerator handlebar that is provided on the handle frame and is electrically connected with the left controller and the right controller.

Wang, however, does not disclose that the controller is provided under the supporting platform, and that regenerated braking of the electric hub is performed by an electrical control system.

Furuta does disclose that the controller (21) is provided under the supporting platform (Figure 1), and that regenerated braking of the electrical hub is performed by an electrical control system (column 6, lines 52-63). Furuta also discloses a braking grip (23) that is provided on the handle frame and electrically connected with the left controller and the right controller. The braking grip has a first end thereof pivotally connected with a fixing seat formed on one end of the handle frame via a pivot pin, and has a notch defined therein proximal to the first end thereof (as shown in the Figure below).



Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Wang in view of the teachings of Furuta to provide the controller under the supporting platform in order to create more space above the platform for the occupant to stand, and also to protect it from being damaged due to inclement weather. It also would have been obvious to use an electrical control system for braking of the electric hub so additional braking elements are not needed, which would reduce the cost of manufacturing and also reduce the weight of the vehicle.

8. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Furuta, and further in view of White (U.S. Pub. No. 2004/0216929 A1).

The combination of Wang and Furuta discloses the claimed invention as discussed above but does not disclose that a reverse switch is provided on the handle frame, wherein a first end of the reverse switch is electrically connected to the power supply means, and a second end of the

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reverse switch is electrically connected to the relay unit, thereby the electric-drive vehicle is able to be reversed.

White, however does disclose that a reverse switch is provided on the handle frame, wherein a first end of the reverse switch is electrically connected to the power supply means, and a second end of the reverse switch is electrically connected to the relay unit, thereby the electric-drive vehicle is able to be reversed (paragraph 26). Also, a high-low-speed switch is provided on the handle frame and electrically connected with the left electric hub and the right electric hub so as to regulate the speed of the left electric hub and the right electric hub (paragraphs 26-27).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a reverse switch on the handle frame so that the user can easily back the vehicle. This increases the safety of the vehicle because the operator avoids any bending, stretching, or twisting when putting the vehicle in reverse, which allows the operator to concentrate on driving rather than switching to reverse.

9. Claims 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Official Notice.

Wang discloses the claimed invention as discussed above but does not disclose lamps and other illuminant means for indication of the status of the vehicle. The examiner takes Official Notice that it is old and well known in the art that vehicles have head lamps, signal lamps, back lamps, braking indicator lamps, and other illuminant means (such as LEDs) for indication of the status of the vehicle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have lamps and other illuminant means so the user and other pedestrians/vehicles are aware of the status of the vehicle and can react accordingly to prevent accidents from occurring.

***Allowable Subject Matter***

10. Claims 4,15-17, and 26-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bank, Shimazaki et al., Shields et al., Sugioka et al., Kamen et al., and Field et al. disclose similar vehicles.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 8 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Drew J. Brown  
Examiner  
Art Unit 3616

db  
8/18/06

  
DAVID R. DUNN  
PRIMARY EXAMINER  
8/18/06